

Title (en)
Self-closing positive engagement clip

Title (de)
Selbstschließend, formschlüssiger Clip

Title (fr)
Pince d'engagement franc à fermeture automatique

Publication
EP 2743557 A3 20170816 (EN)

Application
EP 13196666 A 20131211

Priority
US 201213711994 A 20121212

Abstract (en)
[origin: EP2743557A2] A self-closing clip member (10) includes a body (12) having first and second walls (26, 28). A clamp member (30) is integrally connected to the first wall (26) by a living hinge (32) allowing the clamp member (30) to rotate from an open position into a cavity (34) created between the first and second walls (26, 28) upon direct contact by a tube member, defining a clamp member locked position retaining the tube member. Multiple anti-slide features include a first tab (46) extending from a second wall portion first end. A second tab is oppositely positioned on the second wall. The first and second tabs (46, 48) define cavity end extents. The second tab (48) further extends from a shelf (50) providing a connection between the first wall (26) and an angled intermediate wall (52). A third tab (56) extends between and is integrally connected to both the intermediate (52) and first (26) walls. The tabs (46, 48, 56) define an anti-slide system preventing the clamp member (30) in the locked position from moving in a direction co-axial to the cavity (34).

IPC 8 full level
F16L 3/10 (2006.01); **B60R 16/02** (2006.01); **F16B 2/20** (2006.01); **F16B 5/12** (2006.01); **F16B 9/02** (2006.01); **F16B 21/07** (2006.01); **F16L 3/12** (2006.01)

CPC (source: EP US)
B60R 16/0215 (2013.01 - EP US); **F16B 2/20** (2013.01 - EP US); **F16B 21/075** (2013.01 - EP US); **F16L 3/1075** (2013.01 - EP US); **F16L 3/1203** (2013.01 - EP US); **Y10T 24/1498** (2015.01 - EP US); **Y10T 24/44274** (2015.01 - EP US); **Y10T 24/44547** (2015.01 - EP US)

Citation (search report)

- [A] DE 4031237 A1 19920409 - RAYMOND A KG [DE]
- [A] US 3991960 A 19761116 - TANAKA TOSHIE
- [A] US 4591285 A 19860527 - NELSON JOHN F [US]
- [A] JP S55115677 A 19800905 - AI TEI W ESUPANA SA

Cited by
CN106286986A; CN112066089A; FR3131760A1; CN112524341A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2743557 A2 20140618; EP 2743557 A3 20170816; EP 2743557 B1 20180822; US 2014157557 A1 20140612; US 9109617 B2 20150818

DOCDB simple family (application)
EP 13196666 A 20131211; US 201213711994 A 20121212